

Notice of Allowability

Application No.

10/706,960

Examiner

Vincent Q Nguyen

Applicant(s)

GERMIQUET ET AL.

Art Unit

2858

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to Telephone interview 12/22/2004.
2. ☒ The allowed claim(s) is/are 1-20.
3. ☐ The drawings filed on _____ are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☒ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☒ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date 12/22/2004.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date 11/14/2003
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413),
Paper No./Mail Date 12/22/04.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☒ Other Drawing figure 3.

V. Nguyen 12/22/2004

VINCENT Q. NGUYEN
PRIMARY EXAMINER

DETAILED ACTION

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. John Mion on December 22, 2004.

2. The application has been amended as follows:

Abstract

There is described a portable device (1) including in particular a case (2) closed by a glass (3) and containing means device for detecting the presence of water (20, 22) in contact with an external region of the assembly formed by the case and the glass. In a preferred embodiment, the means device for detecting the presence of water include a plurality of capacitive sensors (20) arranged in a peripheral region of the device (1) so as to undergo a variation in their respective capacitances when the latter is immersed in water. Thus, a quantity characteristic of the capacitance value of each sensor (20) is periodically measured and stored. After each measurement, the new value obtained is compared to the preceding one to detect any variation in the corresponding capacitance. When a part of the capacitive sensors (20) simultaneously see their

respective capacitances vary considerably between two measurements, detection of the presence of water is validated.

~~Figure 4~~

In the claims

Claims 1, line 10, delete "such as". Line 12, after first, replace "called" with "mode is". In the same line, after second replace "called" with "is".

Claim 3, line 7, (Line 32 of the margin), after first, replace "called" with "mode is". In the same line, after second replace "called" with "is". Line 13 (Line 3 of the margin page 17), delete "such as".

Claim 15, line 5 (Line 15 of the margin), after first, replace "called" with "mode is". In the same line, after second replace "called" with "is".

The following changes to the drawings have been approved by the examiner and agreed upon by applicant:

Figure 3, label box 100 --Multiplexor--. Label box 22 --Detection Circuit--. Label box 104 --Control Circuit--. Label box 102 -- Data Processing Unit --. Label box 107 -- Manual Control Member --. Label box 12 -- Pressure Sensor --. Label box 103 -- A/D --.

Label box 109 -- Additional Function Control Unit --.

In order to avoid abandonment of the application, applicant must make these above agreed upon drawing changes.

Allowable Subject Matter

3. Claims 1-20 are allowed.
4. The following is an examiner's statement of reasons for allowance:

The prior art of record does not teach or suggest a portable electronic device having detection means including at least one capacitive sensor including a capacitor, one plate of which is formed by an electrode arranged on an inner region of the case-glass assembly and whose capacitance is capable of varying following a modification in nature of the external medium located directly in contact with an external region of the case-glass assembly opposite the electrode, said region coming into contact with water; a pressure sensor operates in at least two powering modes, the surface mode and the dive mode and wherein said detection means are periodically activated to carry out measurements of a quantity representative of the value of the capacitance of said capacitor, as recited in the independent claim 1, and in combination of the claims.

A portable electronic device having circuits being housed in an assembly formed by a case closed by a glass, the device further including a pressure sensor and means for detecting the presence of water, wherein said pressure sensor is capable of operating in at least two powering modes, the surface mode the dive mode and wherein means for detecting the presence of water include at least a first and a second capacitive sensor each including a capacitor, one plate of which is formed by an electrode arranged on an inner region of the case-glass assembly, as recited in the independent claim 3, and in combination of the claims.

A method for detecting the presence of water having the steps of a) measuring the value of the quantity representative of the capacitance, b) calculating, at each new measurement of said quantity, the variation between its new value and the preceding value; c) activating the dive powering mode if said variation has a higher value than a predefined value or, if not, starting at step (a) again during the next period, as recited in the independent claim 15, and in combination of the claims.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Contact Information

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vincent Q Nguyen whose telephone number is (571) 272-2234. The examiner can normally be reached on 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, N. Le can be reached on (571) 272-2233. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



December 22, 2004

Vincent Q. Nguyen
Primary Examiner
Art Unit 2858